# FEI | Faith Engineering, Inc.

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July 13, 2001

Mr. Nolan Bennett Environmental Health Scientist Bernalillo County Environmental Health Department 600 Second St. NW, Suite 500 Albuquerque, NM 87102 Sent via E-mail: <a href="mailto:nbennett@bernco.gov">nbennett@bernco.gov</a> and US Mail

RE: Transmittal of 2<sup>nd</sup> Quarterly Ground Water Sampling Results

2615 Isleta SW, The Rodgers Drilling Site; NMED/USTB Facility ID No. 11017001 / 30287

Contract Control No. 980473 FEI Project No. 00-01-1186-05

#### Dear Nolan:

Please find included herewith the report for the second quarter of ground water sampling and analysis for the subject site. Ground water sampling was conducted on May 18 and 21, 2001.

This sampling event provides the sample results with field testing for an abbreviated round of 13 of the 30 ground water monitoring wells on site. During this quarter's sampling event, Benzene concentrations above the NMWQCC standard of 10  $\mu$ g/l were found in 6 monitoring wells; W-11, W-14, W-23, VM-4, VM-5, and VM-7. Toluene concentrations above the standard of 750  $\mu$ g/l were found in 4 monitoring wells; VM-4, VM-5, VM-7 and FTW-3. Ethylbenzene concentrations above the standard of 750  $\mu$ g/l were found in 7 monitoring wells; W-11, VM-1, VM-2, VM-4, VM-5, VM-7 and FTW-3. Total xylenes concentrations above the standard of 620  $\mu$ g/l were found in 8 monitoring wells; VM-1, VM-2, VM-4, VM-5, VM-7, FTW-1, FTW-2 and FTW-3. Total naphthalene concentrations (including naphthalene, 1-methylnaphthalene and 2-methylnaphthalene) above the standard of 30  $\mu$ g/l were found in 10 monitoring wells; W-2, W-11, VM-1, VM-2, VM-4, VM-5, VM-7, FTW-1, FTW-2 and FTW-3.

Faith Engineering, Inc. will prepare a work plan for remedial design at this site. Please do not hesitate to contact the undersigned if you have any questions or comments regarding this Sampling Report.

Respectfully submitted,

FAITH ENGINEERING, INC.

Stuart E. Faith, PE - President

cc. w/ encls. Mr. Tom Leck - NMED/USTB

Mr. Bill Brown - TPA

# SECOND QUARTERLY SAMPLING REPORT THE RODGER'S DRILLING SITE 2615 ISLETA BLVD. SW ALBUQUERQUE, NEW MEXICO FACILITY #11017001/30287

PREPARED BY:

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**UNDERGROUND STORAGE TANK BUREAU** 

JULY 13, 2001

PREPARED FOR:

THE BERNALILLO COUNTY ENVIRONMENTAL HEALTH DEPARTMENT AND
THE NEW MEXICO ENVIRONMENT DEPARTMENT

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Form 1223

Site Name: Rodger's Drilling USTB Facility #30287 Date: 07/13/2001 Page 1

# COVER PAGE FORM 1223 QUARTERLY MONITORING REPORT

Please include the following information:

1. Site name:	Rodger's Drilling
2. Responsible party:	Mr. Nolan Bennett
3. Responsible party ma	iling address (list contact person if different):
	Bernalillo County Environmental Health Dept.
	600 2 <sup>nd</sup> Street NW, Suite 500
	Albuquerque, NM 87102
4. Facility number:	11017001/30287
5. Address/legal descri	ption: 2615 Isleta Blvd. SW
	Albuquerque, NM
6. Author/consulting co	ompany: Faith Engineering, Inc.
7. Date of report:	07/13/2001
8. Date of confirmation	of release or date USTB was notified of the release
	1988

Form 1223

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# STATEMENT OF FAMILIARITY

I, the undersigned, am personally familiar with the information submitted in this report and the attached documents and attest that it is true and complete.

Signature:	
Name:	Stuart Faith
Affiliation:	Faith Engineering, Inc.
Title:	President
Certified Scientist	#:080
Date:	

Date: 07/13/2001 Page 3

#### I. INTRODUCTION:

#### I. A. Scope of Work

Faith Engineering, Inc. (FEI), in collaboration with Tecumseh Professional Associates, Inc. (TPA), has been retained by the Bernalillo County Environmental Health Department to provide professional environmental services at the Rodger's Drilling site, 2615 Isleta SW, Albuquerque, New Mexico (the Site). The location of the Site is shown on Figure 1. This report documents the second quarter of ground water sampling conducted at the site on May 18 and 21, 2001. The period covered in this report is from December 2000 to May 2001.

#### I. B. This quarter's highlights

This sampling event represents the second quarter of ground water quality re-examination as outlined in the work plan approval letter dated November 11, 1999, as amended on March 17, 2000 and again on November 17, 2000. The sampling event provides the sample results with field testing for an abbreviated round of 13 of the 30 ground water monitoring wells on site. A Hydrogeologic Investigation (See "Rodger's Drilling Site Hydrogeologic Investigation" dated April 17, 2001) was also performed and reported during this quarter to better characterize the current subsurface hydrogeologic regime and the vertical and horizontal extent of soil and groundwater impacts at the Site following remedial efforts.

#### II. ACTIVITIES PERFORMED DURING THIS QUARTER:

#### II. A. Brief description of the remediation system and date installed

Initial investigation activities were conducted at the site by Metric in 1989 and 1990 under contract with Rodgers Drilling Inc. Nineteen drive points and 2 hollow stem auger monitor wells were installed in the site vicinity identifying a large dissolved-phase Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) groundwater plume. In 1991, Metric installed a passive air-inlet soil remediation system at the Site. Five trenches approximately 50 feet in length were excavated to the water table allowing for four-inch diameter PVC slotted screens to be placed horizontally and manifolded to above ground wind turbines. The trenches were back filled with gravel and capped with asphalt. Additionally, 150 cubic yards of soils was reportedly removed from the former UST location.

The Rodgers Site was added to the NMED list of GWPA State Lead remediation projects in 1992. NMED retained Billings and Associates, Inc. (BAI) to evaluate site conditions and implement an enhanced remedial strategy. BAI installed an in-situ SVVS<sup>TM</sup> remediation system consisting of 2 primary lines of sparge and vent wells. A line of 20 sparge/vent wells are indicated from the BAI site plan as being located along the south side of the Rodgers building. The exact location is unclear and may be located on either side of the Auto Zone/Rodgers property boundary and can only be estimated as all components of this line are buried. An additional 7 sparge/vent wells are located along the north side of the Rodgers property

and can be located from evidence in the field. The AS/VE system was operated for approximately 3 years prior to shutdown.

It appears that two source areas are present in the site vicinity; one located in the vicinity of the former USTs on the Rodgers property, and one located north of the site in the vicinity of the former Sparkle Car Wash USTs (See Figure 1). In 1990, approximately 250 yards of hydrocarbon contaminated soil was excavated from the Sparkle UST pit and allowed to aerate on-site. An active horizontal groundwater sparging/passive vadose zone venting system was installed in the excavation pit. This system was operated for approximately 3 months before being turned off.

#### II. B. Description of activities performed to keep system operating properly

None. System was shut down in 1997.

#### II. C. Monitoring activities performed

Ground water monitoring and sampling at the Site during this quarter took place on May 18 and 21, 2001. This quarter's sampling included the following:

- ground water elevation measurements in all wells.
- quarterly event ground water sampling of monitor wells W-2, W-3, W-11, W-14, W-23, VM-1, VM-2, VM-4, VM-5, VM-7, FTW-1, FTW-2, and FTW-3.
- laboratory analysis of ground water samples for Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX), Methyl-t-Butyl Ether (MTBE), TMB, Ethylene Dibromide (EDB), Ethylene Dichloride (EDC), Naphthalene, 1-Methynaphthalene and 2-Methylnaphthalene by EPA Method 8260 (expanded naphthalenes).
- field testing for natural attenuation indicators of ground water samples, including iron, phosphate, sulfide, nitrate, alkalinity, pH, dissolved oxygen, conductivity, and temperature.

The locations of all monitor wells are shown on Figure 1. Monitoring and sampling procedures are described in Appendix 1. Table 4 provides a historical summary of field activities at the site and Appendix 2 contains this quarter's original Field Activity Logs. The laboratory results of the ground water analyses for the current monitoring period are shown on Table 1. Historic ground water sampling results are shown on Table 2. Laboratory reports and the Chain of Custody Form are provided in Appendix 3.

During this quarter's sampling event, benzene concentrations above the NMWQCC standard of 10 μg/l were found in 6 monitoring wells; W-11, W-14, W-23, VM-4, VM-5, and VM-7. Toluene concentrations above the standard of 750 μg/l were found in 4 monitoring wells; VM-4, VM-5, VM-7 and FTW-3. Ethylbenzene concentrations above the standard of 750 μg/l were found in 7 monitoring wells; W-11,

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VM-1, VM-2, VM-4, VM-5, VM-7 and FTW-3. Total Xylenes concentrations above the standard of 620 μg/l were found in 8 monitoring wells; VM-1, VM-2, VM-4, VM-5, VM-7, FTW-1, FTW-2 and FTW-3. Total naphthalene concentrations (including naphthalene, 1-methylnaphthalene and 2-methylnaphthalene) above the standard of 30 μg/l were found in 10 monitoring wells; W-2, W-11, VM-1, VM-2, VM-4, VM-5, VM-7, FTW-1, FTW-2 and FTW-3. A total BTEX summary and contour map for the second quarter ground water analysis are shown on Figure 1. In an effort to more realistically characterize the analytical data generated from the quarterly sampling, FEI has adopted a reporting standard of multi-component compounds like total Xylenes (see Appendix 1).

Depth to ground water during this quarter's sampling event varied from 6.24 feet below ground surface (bgs) in wells W-6 and W-23 to 8.53 feet bgs in well W-14. All ground water elevation data including the historical data is summarized in Table 3. This quarter's measurements of on-site ground water elevations indicate a defined directional flow in an easterly orientation. A water elevation summary and directional flow map for the second guarter ground water measurements are shown on Figure 2.

#### II. D. System performance and effectiveness

Not Applicable, See II. A. and B.

# II. E. Statement verifying containment of release

Based on ground water sample results from site perimeter monitoring wells and the recently completed Hydrogeologic Investigation, containment of off-site ground water contaminants cannot be assured at the Rodger's Drilling Site under present conditions. High levels of dissolved phase hydrocarbons are present in the ground water which extend off-site to the north in the Sparkle Car Wash property and south onto the Auto Zone property. Please refer to Figure 1. Long-term monitoring by the responsible party indicates that the Sparkle Car Wash plume is relatively restricted in size, is partially remediated, and has not co-mingled with the Rodgers Site plume. There is no evidence to suggest additional off-site, up-gradient sources of contaminant for the BTEX concentration levels.

#### **III. SUMMARY AND CONCLUSIONS:**

#### III. A. Discussion of trends or changes noted in analytical results or site conditions

Laboratory results obtained during this second quarter sampling event and the Hydrogeologic Investigation indicate that BTEX concentrations in the ground water has migrated from the site's former UST location off-site, north to the Sparkle Car Wash property and south to the Auto Zone property. BTEX concentrations are above the NMWQCC standards in monitoring wells adjacent to these properties. Naphthalene concentrations are also above the NMWQCC standard of 30 µg/l in monitoring wells W-2, W-11, VM-1 and VM-2 at the site's north and south property boundary.

Form 1223

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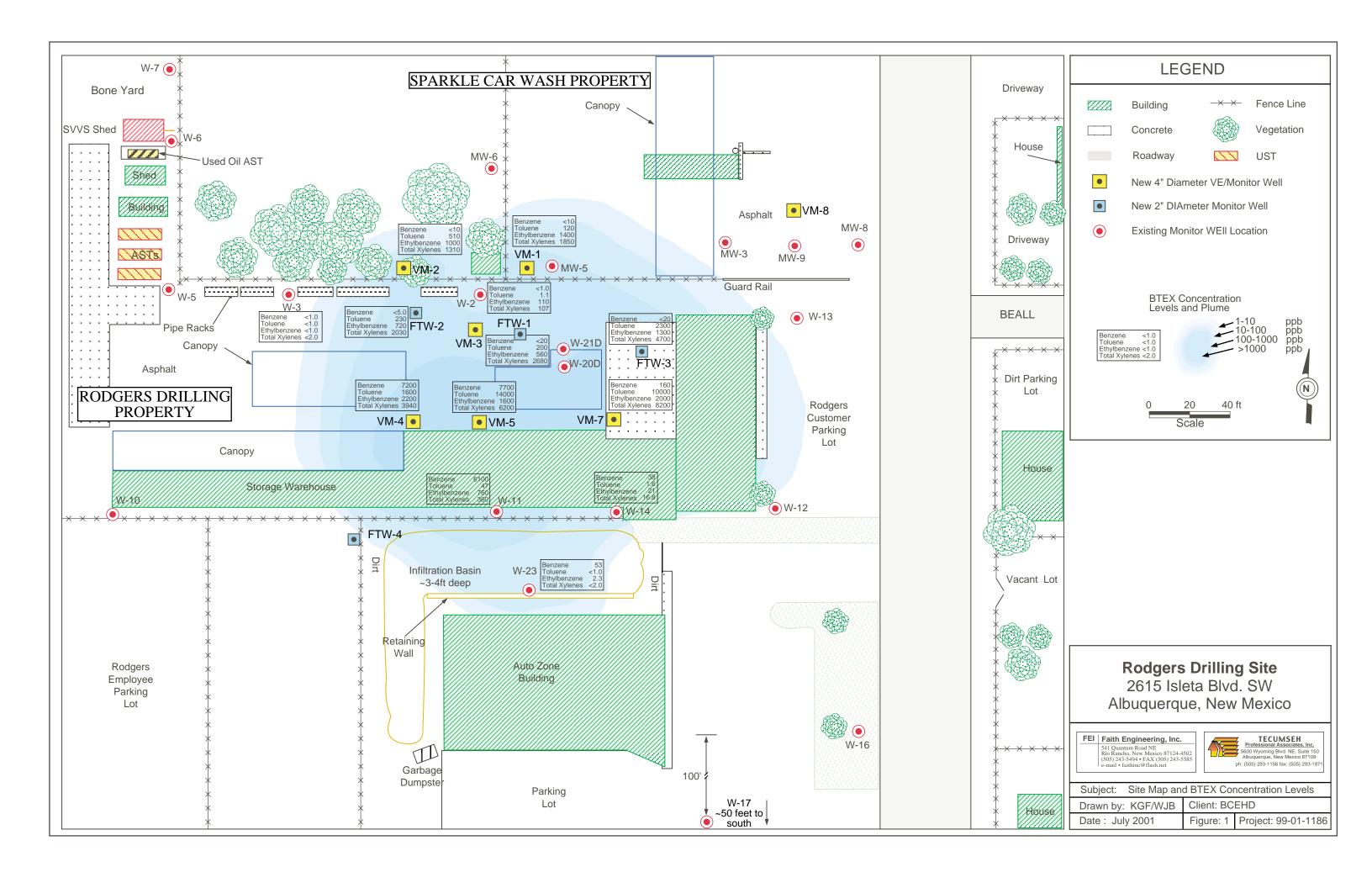
These results also indicate that the contaminant plume may be characterized as an older and weathered petroleum release.

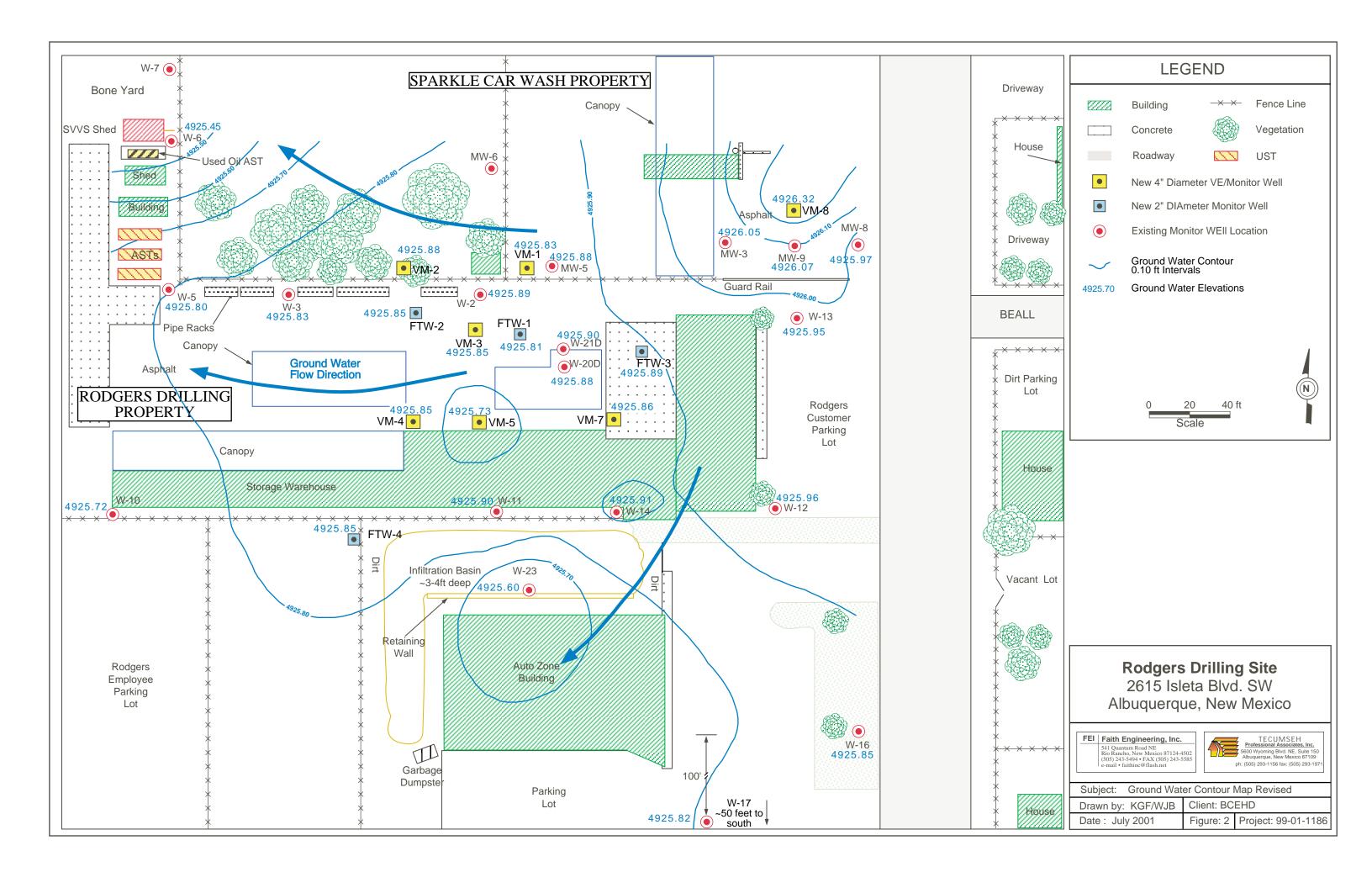
# III. B. Ongoing assessment of the remediation system

Not Applicable, See II. A. and B.

# III. C. Recommendations

FEI recommends continuing site monitoring and sampling pursuant to the work plan approval letter dated November 11, 1999, as amended to change the report submission dates. FEI also recommends conducting a Tier Two RBCA evaluation to determine future actions. A new work plan will be submitted shortly for a conceptual remediation plan to address the need for further remedial action at the site. The next quarterly sampling report will be submitted on or about August 15, 2001.





# TABLE 1 Rodger's • 2615 Isleta

# 00-01-1186-05 • NMED FACILITY #30287

**CURRENT GROUND WATER ANNALYSIS RESULTS** 

						OR	GANI	CS						I	NORG	ANICS	S		INDICATORS		
LOCATION	DATE SAMPLED	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	TMB	NAPHTHALENE	1-METHYL NAPHTHALENE	2-METHYL NAPHTHALENE	IRON	PHOSPHATE	SULFIDE	ALKALINITY as CaCO.	DISS 02	NITRATE	Нф	CONDUCTIVITY	TEMP
UNIT		μg/l	μg/l	μg/l	μg/l	μg/l	μg/l	ug/l	μg/l	μg/l	μg/l	μg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		µmhos/cm	°C
STANDA	=	<u>10</u>	<u>750</u>	<u>750</u>	<u>620</u>	<u>100</u>	<u>0.1</u>	<u>10</u>			<u>30</u>										
W-2	05/21/01	< 1.0	1.1	110	107	< 1.0	< 1.0	< 1.0	897	52	110	51	40	4.0	0.2	500	5.0	0.1	7.27	1368	29.0
W-3	05/18/01	< 1.0	< 1.0	< 1.0	<2.0	26	< 1.0	< 1.0	<2.0	< 1.0	< 5.0	< 5.0	20	5.0	6.0	350	3.0	0.4	6.93	2666	19.3
W-11	05/21/01	6100	47	760	360	< 25	< 25	< 25	64	110	< 130	< 130	2.0	2.0	0.0	500	3.0	0.6	7.08	1838	20.5
W-14	05/21/01	38	1.6	21	16.8	< 1.0	< 1.0	< 1.0	34.4	4.3	< 5.0	< 5.0	5.0	0.0	0.0	500	4.0	0.3	7.00	2271	22.2
W-23	05/21/01	53	< 1.0	2.3	<2.0	< 1.0	< 1.0	< 1.0	<2.0	1.7	< 5.0	< 5.0	3.0	2.0	0.0	350	2.0	0.6	6.91	1708	20.4
VM-1	05/21/01	< 10	120	1400	1850	< 10	< 10	< 10	1271	270	140	110	8.0	0.4	2.0	500	6.0	0.4	7.22	1066	20.8
VM-2	05/21/01	< 10	510	1000	1310	< 10	< 10	< 10	1330	180	100	110	0.2	1.0	2.0	400	2.0	0.2	7.43	2324	20.9
VM-4	05/21/01	7200	1600	2200	3940	< 5.0	< 5.0	< 5.0	1260	410	120	150	10	5.0	7.0	500	2.0	0.4	6.68	2080	21.4
VM-5	05/21/01	7700	14000	1600	6200	< 10	< 10	< 10	1520	320	170	170	3.0	3.0	1.0	600	2.0	0.2	6.90	2039	20.4
VM-7	05/18/01	160	10000	2000	8200	< 50	< 50	< 50	1890	610	720	610	1.5	0.2	0.3	550	4.0	1.0	6.94	2120	21.2
FTW-1	05/21/01	< 20	200	560	2680	< 20	< 20	< 20	830	170	140	160	2.0	2.0	0.0	350	2.0	0.4	7.03	2151	20.0
FTW-2	05/18/01	< 5.0	230	720	2030	< 5.0	< 5.0	< 5.0	840	150	68	69	0.6	0.2	0.0	350	3.0	1.5	6.95	972	21.4
FTW-3	05/18/01	< 20	2300	1300	4700	< 20	< 20	< 20	3160	380	210	310	3.0	2.0	2.0	350	1.0	0.8	7.14	2241	21.8
TRIP BLANK	05/17/01	< 1.0	< 1.0	< 1.0	<2.0	< 1.0	< 1.0	< 1.0	<2.0	< 1.0	< 5.0	< 5.0									

Data checked \_\_\_\_\_/ \_\_\_\_\_

# TABLE 2 Rodger's 2615 Isleta 00-01-1186-05 • NMED FACILITY #11017001

HISTORICAL GROUND WATER ANALYSIS RESULTS

ORGANICS													INORGA	ANICS	S			INDICATORS		
LOCATION	DATE SAMPLED	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	TMB	TOTAL NAPHTHALENE	IRO	ON	PHOSPHATE	SULFIDE	ALKALINITY as CaCO.	DISS 02	NITRATE	Hd	CONDUCTIVITY	TEMP
UNIT	S	μg/l	μg/l	μg/l	μg/l	μg/l	μg/l	ug/l	μg/l	μg/l	μς	g/l	mg/l	mg/l	mg/l	mg/l	mg/l		µmhos/cm	°C
STANDA	RDS	<u>10</u>	<u>750</u>	<u>750</u>	<u>620</u>	<u>100</u>	<u>0.1</u>	<u>10</u>		<u>30</u>	SOLUBLE	TOTAL								
MW - 3	9/25/00	< 1.0	< 1.0	< 1.0	< 2.0	7.2	< 1.0	< 1.0	< 2.0	< 1.0	50	50	0.0	1.0	550	5.0	0.4	7.39	2887	24.6
MW - 5	9/25/00	< 1.0	< 1.0	1.0	< 2.0	20	< 1.0	< 1.0	<4.4	< 1.0	0.3	0.3	1.5	0.2	250	0.5	1.0	7.23	2562	24.1
MW - 8	9/26/00	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	*	0.1	1.5	0.0	350	0.5	0.3	6.95	3065	24.8
W - 2	9/25/00	< 5.0	< 5.0	240	423	30	< 5.0	< 5.0	1640	130	20	40	3.0	2.0	†	†	0.3	7.47	2441	23.2
	05/21/01	< 1.0	1.1	110	107	< 1.0	< 1.0	< 1.0	897	213	*	40	4.0	0.2	500	5.0	0.1	7.27	1368	29.0
W - 3	9/25/00	< 1.0	< 1.0	2.5	4.5	29	< 1.0	< 1.0	< 2.0	< 1.0	4.0	32	5.0	0.2	400	4.0	0.1	7.07	2358	21.7
	05/18/01	< 1.0	< 1.0	< 1.0	<2.0	26	< 1.0	< 1.0	<2.0	< 11	*	20	5.0	6.0	350	3.0	0.4	6.93	2666	19.3
W - 5	9/25/00	< 1.0	< 1.0	< 1.0	< 2.0	4.3	< 1.0	< 1.0	< 2.0	< 1.0	0.0	0.1	1.5	0.0	250	0.5	1.0	6.87	2268	22.2
W - 6	9/25/00	< 1.0	< 1.0	< 1.0	< 2.0	10	< 1.0	< 1.0	< 2.0	< 1.0	0.1	0.1	3.0	0.0	300	0.5	0.6	6.92	2538	21.6
W - 10	9/25/00	< 1.0	< 1.0	< 1.0	< 2.0	1.7	< 1.0	< 1.0	< 2.0	< 1.0	0.1	0.2	1.0	0.0	300	1.0	8.0	7.05	2095	19.6
W - 11	9/25/00	2300	< 20	1400	<1020	< 20	< 20	< 20	< 340	390	1.0	2.0	1.5	0.3	500	1.5	1.0	7.12	2113	21.6
	05/21/01	6100	47	760	360	< 25	< 25	< 25	64	370 †	*	2.0	2.0	0.0	500	3.0	0.6	7.08	1838	20.5
W - 12	9/26/00	< 1.0	< 1.0	1.0	< 2.0	< 1.0	< 1.0	< 1.0	19.4	1.8	*	0.3	1.0	0.1	200	2.0	1.5	7.24	2716	23.3
W - 13	9/25/00	< 1.0	< 1.0	< 1.0	< 2.0	1.3	< 1.0	< 1.0	< 2.0	< 1.0	1.0	1.0	0.3	0.0	350	1.0	1.0	7.11	2844	26.4
W - 14	9/25/00	3.2	< 1.0	41	4.9	1.7	< 1.0	< 1.0	<5.4	2.9	4.0	5.0	2.0	0.1	500	2.0	1.0	7.11	2495	21.8
	05/21/01	38	1.6	21	16.8	< 1.0	< 1.0	< 1.0	34.4	14.3 †	*	5.0	0.0	0.0	500	4.0	0.3	7.00	2271	22.2

# TABLE 2 Rodger's 2615 Isleta 00-01-1186-05 • NMED FACILITY #11017001 HISTORICAL GROUND WATER ANALYSIS RESULTS

	ORGANICS											INORGA	ANIC	S			INDICATORS			
LOCATION	DATE SAMPLED	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	TMB	TOTAL NAPHTHALENE	IRO	ON	PHOSPHATE	SULFIDE	ALKALINITY as CaCO.	DISS 02	NITRATE	Hd	CONDUCTIVITY	TEMP
UNIT	S	μg/l	μg/l	μg/l	μg/l	μg/l	μg/l	ug/l	μg/l	μg/l	μί	g/l	mg/l	mg/l	mg/l	mg/l	mg/l		µmhos/cm	°C
STANDA	RDS	<u>10</u>	<u>750</u>	<u>750</u>	<u>620</u>	<u>100</u>	<u>0.1</u>	<u>10</u>		<u>30</u>	SOLUBLE	TOTAL								
W - 16	9/26/00	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	*	*	*	*	*	*	*	*	*	*
W - 17	9/26/00	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	*	*	*	*	*	*	*	*	*	*
W - 20D	9/26/00	< 1.0	< 1.0	< 1.0	< 2.0	5.4	< 1.0	< 1.0	< 2.0	< 1.0	1.0	1.0	0.3	0.4	350	1.0	1.0	7.22	2746	18.7
W - 21D	9/26/00	< 1.0	< 1.0	< 1.0	< 2.0	6.1	< 1.0	< 1.0	< 2.0	< 1.0	1.5	1.5	3.0	0.0	250	1.5	0.6	6.96	2903	19.1
W - 23	9/26/00	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	*	2.0	7.0	0.0	275	1.0	0.3	6.87	2397	23.0
	1/16/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	*	*	*	*	*	0.80	*	7.98	40.8	10.3
	05/21/01	53	< 1.0	2.3	<2.0	< 1.0	< 1.0	< 1.0	<2.0	11.7 †	*	3.0	2.0	0.0	350	2.0	0.6	6.91	1708	20.4
MW - 9	9/25/00	< 1.0	< 1.0	120	<38	11	< 1.0	< 1.0	39.6	20	1.0	1.0	2.5	0.0	225	1.0	0.6	7.04	2660	26.4
VM - 1	1/16/01	ND	760	1500	3300	ND	ND	ND	1790	840	< 0.02	7.56	< 0.5	250	930	0.83	< 0.5	8.07	125.4	13.1
	05/21/01	< 10	120	1400	1850	< 10	< 10	< 10	1271	520	*	8.0	0.4	2.0	500	6.0	0.4	7.22	1066	20.8
VM - 2	1/16/01	ND	190	1300	2000	ND	ND	ND	1700	310	< 0.02	3.30	< 0.5	280	820	0.74	< 0.5	7.81	100.8	14.0
	05/21/01	< 10	510	1000	1310	< 10	< 10	< 10	1330	390	*	0.2	1.0	2.0	400	2.0	0.2	7.43	2324	20.9
VM - 3	1/16/01	ND	2800	1100	4400	ND	ND	ND	1240	210	0.07	14.3	< 0.5	400	710	0.43	< 0.5	7.63	231.0	15.5
VM - 4	1/16/01	6600	4100	2300	6600	ND	ND	ND	2020	360	0.15	11.7	< 0.5	1.1	990	0.63	< 0.5	7.29	166.2	13.6
	05/21/01	7200	1600	2200	3940	< 5.0	< 5.0	< 5.0	1260	680	*	10	5.0	7.0	500	2.0	0.4	6.68	2080	21.4
VM - 5	1/16/01	8700	13000	1500	8500	ND	ND	ND	1610	270	0.05	7.98	< 0.5	240	780	0.82	< 0.5	7.45	203.0	14.1
	05/21/01	7700	14000	1600	6200	< 10	< 10	< 10	1520	660	*	3.0	3.0	1.0	600	2.0	0.2	6.90	2039	20.4
VM - 7	1/16/01	260	9600	2000	8500	ND	ND	ND	1960	380	0.03	2.19	< 0.5	52	880	1.20	< 0.1	7.60	194.0	13.2
	05/18/01	160	10000	2000	8200	< 50	< 50	< 50	1890	1940	*	1.5	0.2	0.3	550	4.0	1.0	6.94	2120	21.2

# TABLE 2 Rodger's 2615 Isleta 00-01-1186-05 • NMED FACILITY #11017001

HISTORICAL GROUND WATER ANALYSIS RESULTS

ORGANICS												INORGA		INDICATORS						
LOCATION	DATE SAMPLED	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	TMB	TOTAL NAPHTHALENE	IRO	ON	PHOSPHATE	SULFIDE	ALKALINITY as CaCO.	DISS 02	NITRATE	Hd	CONDUCTIVITY	TEMP
UNIT	S	μg/l	μg/l	μg/l	μg/l	μg/l	μg/l	ug/l	μg/l	μg/l	μς	g/l	mg/l	mg/l	mg/l	mg/l	mg/l		µmhos/cm	°C
STANDA	RDS	<u>10</u>	<u>750</u>	<u>750</u>	<u>620</u>	<u>100</u>	<u>0.1</u>	<u>10</u>		<u>30</u>	SOLUBLE	TOTAL								
FTW - 1	1/16/01	ND	440	900	5600	ND	ND	ND	1770	280	< 0.02	9.74	< 0.5	540	530	0.46	< 0.1	7.56	231.0	16.1
	05/21/01	< 20	200	560	2680	< 20	< 20	< 20	830	470	*	2.0	2.0	0.0	350	2.0	0.4	7.03	2151	20.0
FTW - 2	1/16/01	ND	1100	1200	3100	ND	ND	ND	1350	300	< 0.02	8.80	< 0.5	390	470	0.51	< 0.5	7.58	89.7	15.5
	05/18/01	< 5.0	230	720	2030	< 5.0	< 5.0	< 5.0	840	287	*	0.6	0.2	0.0	350	3.0	1.5	6.95	972	21.4
FTW - 3	1/16/01	ND	2600	1100	4000	ND	ND	ND	1390	260	< 0.02	2.97	< 0.5	740	600	0.49	< 0.1	7.51	254.0	16.4
	05/18/01	< 20	2300	1300	4700	< 20	< 20	< 20	3160	900	*	3.0	2.0	2.0	350	1.0	0.8	7.14	2241	21.8
FTW - 4	1/16/01	ND	ND	ND	ND	20	ND	ND	ND	ND	< 0.02	3.42	< 0.5	570	560	0.69	< 0.1	7.49	231.0	15.5

 $<sup>\</sup>Delta$  - Not enough water in well, no recovery \* - not sampled or tested  $\dagger$  - Refer to Appendix 1

Data checked \_\_\_\_\_/ \_\_\_\_\_

# TABLE 3 00-01-1186-01 • Rodger's 2615 Isleta Blvd NMED FACILITY #11017001

# SUMMARY OF GROUND WATER ELEVATION MEASUREMENTS

WELL NUMBER	ELEVATION (feet above datum)	DATE	STATIC (feet BG)	WATER LEVEL (feet AD)	(+) = RISING (-) = FALLING
MW-3	4934.51	9/25/00	8.63	4925.88	
		5/18/01	8.46	4926.05	0.17
MW-5	4933.36	9/25/00	7.68	4925.68	
		5/18/01	7.48	4925.88	0.20
MW-8	4933.43	9/26/00	7.64	4925.79	
		5/18/01	7.46	4925.97	0.18
MW-9	4934.10	9/25/00	8.22	4925.88	
		5/18/01	8.03	4926.07	0.19
W-2	4933.56	9/25/00	7.88	4925.68	
		5/18/01	7.67	4925.89	0.21
W-3	4932.68	9/25/00	7.07	4925.61	
		5/18/01	6.85	4925.83	0.22
W-5	4932.28	9/25/00	6.69	4925.59	
		5/18/01	6.48	4925.80	0.21
W-6	4931.69	9/25/00	6.46	4925.23	
		5/18/01	6.24	4925.45	0.22
W-10	4932.64	9/25/00	7.11	4925.53	
		5/18/01	6.92	4925.72	0.19
W-11	4933.68	9/25/00	7.98	4925.70	
		5/18/01	7.78	4925.90	0.20
W-12	4934.13	9/26/00	8.34	4925.79	
		5/18/01	8.17	4925.96	0.17
W-13	4933.68	9/25/00	7.93	4925.75	
		5/18/01	7.73	4925.95	0.20
W-14	4934.44	9/25/00	8.72	4925.72	
		5/18/01	8.53	4925.91	0.19
W-16	4933.13	9/26/00	11.06	4922.07	
		5/18/01	7.28	4925.85	3.78
W-17	4932.28	9/26/00	6.63	4925.65	
		5/18/01	6.46	4925.82	0.17
W-20D	4934.15	9/26/00	8.43	4925.72	
		5/18/01	8.27	4925.88	0.16
W-21D	4934.19	9/26/00	8.43	4925.76	
		5/18/01	8.29	4925.90	0.14
W-23	4931.84	9/26/00	6.51	4925.33	
		5/18/01	6.24	4925.60	0.27
VM-1	4933.00	1/16/01	7.00	4926.00	
		5/18/01	7.17	4925.83	-0.17

# TABLE 3 00-01-1186-01 • Rodger's 2615 Isleta Blvd NMED FACILITY #11017001

# SUMMARY OF GROUND WATER ELEVATION MEASUREMENTS

WELL NUMBER	ELEVATION (feet above datum)	DATE	STATIC (feet BG)	WATER LEVEL (feet AD)	(+) = RISING (-) = FALLING
VM-2	4932.84	1/16/01	7.12	4925.72	
		5/18/01	6.96	4925.88	0.16
VM-3	4933.23	1/16/01	7.38	4925.85	
		5/18/01	7.38	4925.85	0.00
VM-4	4933.30	1/16/01	7.45	4925.85	
		5/18/01	7.45	4925.85	0.00
VM-5	4933.28	1/16/01	7.56	4925.72	
		5/18/01	7.55	4925.73	-0.01
VM-7	4934.09	1/16/01	9.23	4924.86	
		5/18/01	8.23	4925.86	-1.00
VM-8	4933.74	5/18/01	7.77	4926.32	
FTW-1	4933.59	1/16/01	7.74	4925.85	
		5/18/01	7.78	4925.81	-0.04
FTW-2	4932.94	1/16/01	7.10	4925.84	
		5/18/01	7.09	4925.85	0.01
FTW-3	4934.10	1/16/01	8.21	4925.89	
		5/18/01	8.21	4925.89	0.00
FTW-4	4932.79	1/16/01	6.93	4925.86	
		5/18/01	6.94	4925.85	0.01

Data checked \_\_\_\_\_ / \_\_\_\_\_

# TABLE 4 00-01-1186-05 • Rodger's 2615 Isleta Blvd. SW NMED FACILITY #30287

Summary of Tasks Performed in the Field

DATE	FIELD TECH.	DESCRIPTION
9/21/00	KGF, MB	Initial sampling round(1st Qtr)-all existing wells, site survey.
10/12/00-10/13/00	BB, TC	Drilling on site, soil samples taken.
11/28/00	BB, TC	Drilling on site, soil samples taken.
1/16/01	BB, SG	Collect GW samples, new wells
2/21/01	BB, TC	Drilling on site, soil samples taken.
5/18/01 & 5/21/01	KL, MB	2nd Quarterly sampling round, 13 selected wells, all GW levels.

Data	checked	/

# APPENDIX 1

Sampling Protocol

Prior to any sampling, well development or purging, all monitor wells were sounded for depth to ground water. FEI used an electronic sounder with an accuracy of ±0.01/foot. Ground water elevations (from datum) were determined using survey data collected during the Hydrogeologic Investigation.

Prior to any sampling event, a minimum of three (3) well bore volumes were purged from each well using a Grundfos Sampling Pump. Samples were collected in HCl preserved VOAs and placed on ice in a container for delivery to Pinnacle Laboratories, in Albuquerque, New Mexico, for analyses. The ground water samples were analyzed for Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX), Methyl-t-Butyl Ether (MTBE), TMB, Ethylene Dibromide (EDB), Ethylene Dichloride (EDC), Naphthalene, 1-Methylnaphthalene and 2-Methylnaphthalene by EPA Method 8260 (expanded napthalenes). Natural attenuation indicator parameters Iron, Phosphate, Sulfide, Alkalinity, pH, dissolved oxygen, conductivity, temperature and nitrate were analyzed and measured in the field using the appropriate field test kits and equipment. All EPA-approved sampling protocols were observed and a chain of custody was maintained on all samples.

In an effort to more realistically characterize the analytical data generated from the quarterly sampling, FEI has adopted a reporting standard of multi-component compounds like total xylenes. Detection limit values in a multi-component compound that are reported as below detection limits and are less than 10 percent of the lowest detectable value will not be added-in as part of the total concentration value reported. Detection limit values greater than 10 percent of the lowest detectable value will be added-in as part of the total concentration value reported. This will eliminate confusion regarding the "less-than" symbols where concentrations have been detected.

# APPENDIX 2

Field Notes

# APPENDIX 3

**Analytical Laboratory Reports**